

(19) World Intellectual Property Organization
International Bureau(43) International Publication Date
6 December 2001 (06.12.2001)

PCT

(10) International Publication Number
WO 01/92722 A1

(51) International Patent Classification: F04B 17/04

(21) International Application Number: PCT/KR01/00827

(22) International Filing Date: 19 May 2001 (19.05.2001)

(25) Filing Language: Korean

(26) Publication Language: English

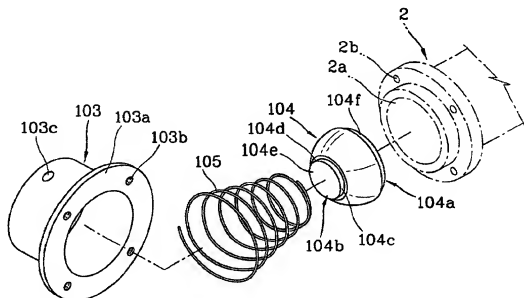
(30) Priority Data:
2000/29045 29 May 2000 (29.05.2000) KR(71) Applicant (for all designated States except US): LG
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Nonhyun-Dong, Kangnam-Ku, Seoul 135-010 (KR).(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ,
DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR,
HU, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS,
LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO,
NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian
patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European
patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BI, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

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(54) Title: DISCHARGE VALVE APPARATUS FOR RECIPROCATING COMPRESSOR



(57) Abstract: A discharge valve apparatus for a reciprocating compressor comprises a discharge cover having built-in volume so as to cover a front end surface of the cylinder; a discharge valve disposed so as to be contacted/separated to/from the front end surface of the cylinder by a piston which undergoes a reciprocating movement inside the cylinder; and a valve spring having both ends respectively adhered to rear side of the discharge valve and to inner surface of the discharge cover so as to elastically support the rear side of the discharge valve. A rotation radius of the valve spring of a conical type is formed to be gradually reduced or increased so that impacts of a part of other parts during the compression can be prevented. Accordingly, when the valve spring is compressed in accordance with the compression and discharge strokes of the piston, the impacting noise caused by the impacts of the respective parts in the valve spring can be prevented previously.

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10. The apparatus of claim 8, wherein the discharge valve further comprises an undercutting surface unit formed as biased to at least one of the pressure face and the pressure back face.

5 11. The apparatus of claim 8, wherein the pressure back face unit further comprises a spring insert unit so as to be forcedly inserted into the valve spring.

12. The apparatus of claim 11, wherein the spring insert unit
10 includes a vertical portion and a horizontal portion.

13. The apparatus of claim 1, wherein a gate is formed on fixed metal mold on which the pressure face unit is molded, when the discharge valve is fabricated by an injection molding method.

15 14. The apparatus of claim 1, wherein a plurality of eject pins are formed on a movable metal mold on which the pressure back face unit is formed, when the discharge valve is fabricated by an injection molding method